AstroStart®

REMOTE CONTROL ENGINE STARTER

USER MANUAL

Model 2504A

For all gas- and diesel-powered vehicles

This model may be equipped with an optional security system..

(FRANÇAIS AU VERSO)

CONSULT SAFETY PRECAUTION SECTION BEFORE USING THIS PRODUCT.

SOME FEATURES MAY REQUIRE ADDITIONAL MATERIAL (NOT INCLUDED).

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GOVERNMENT REGULATIONS

This device complies with the requirements of Industry Canada (IC) - Management of Radiofrequencies, as specified in document CNR-210. Its use is authorized only on a no-interference, no-protection basis; in other words, this device must not be used if it is determined that it causes harmful interference to services authorized by IC. In addition, the user of this device must accept any radio interference that may be received, even if this interference could affect the operation of the device.

This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

(1) this device may not cause harmful interference and

(2) this device must accept interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

Warning:

Changes or modifications not expressly approved by <manufacturer> could void the user's authority to operate the equipment.

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THANK YOU FOR CHOOSING AN ASTROSTART REMOTE CAR STARTER!

Just like you are, Astroflex is concerned with the environment.
This is why we are suggesting you to use the two-minute runtime when you remote-start your vehicle to warm up engine fluids.

You can set the runtime yourself using your transmitter.

We take this opportunity to remind you to properly defrost your windows and remove all the snow on your vehicle before driving on public roads.

Rolling igloos are extremely dangerous!

We wish you an excellent journey with your remote engine starter!

USER GUIDE FOR 2504A REMOTE ENGINE STARTER

The 2504A is a remote engine starter system that provides unlock features allowing remote control of door and trunk locks. These features are optional and may require additional material and/or wiring during installation.

When it is interfaced with an optional safety system, not only does it allow to start the vehicle at a distance, it can sound an alarm and prevent engine from starting should someone try to steal your vehicle or its contents.

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SAFETY PRECAUTIONS

Before using this product, carefully read the following safety precautions.

GENERAL RULES

- **Never perform a remote start** when a person or animal is inside the vehicle.
- **Do not allow** any person or animal to remain inside the vehicle when the engine is running under remote starter control (continuous mode).
- Immediately report any malfunction to the AstroStart dealer that performed the installation.
- **Under no circumstance can this product or its use be modified.**
- Always turn off the main switch when vehicle is parked in an enclosed, unventilated area or is in for servicing.
- Always turn off the main switch when not using your remote starter for extended periods.
- Keep remote controls **away from children**.
- Have your engine tuned regularly to ensure optimum performance of your remote starter.
- Make sure that the windshield wipers and the headlights are turned off before leaving vehicle.
- Regularly check safety features that stop engine (see "Safety Checks" on page 17.)
- Make sure you comply with all local regulations, which may prohibit leaving your engine running when vehicle is unattended in a public place.
- To ensure continued safe operation of your remote starter, ask your AstroStart dealer to periodically check and/or tune the remote starting system.
- Always advise service personnel that your vehicle is equipped with a remote starter.
- **We strongly recommend** that you have your remote starter checked annually. Contact a dealer in your area.
- **All users of the vehicle should be aware** of the safety precautions and operation procedures.
- Make sure that the warning sticker is present on the driver's window.

SPECIFIC RULES FOR MANUAL TRANSMISSION VEHICLES

- Make sure that the parking brake is operational, i.e. it can **prevent the vehicle from moving**.
- If the shift lever is accessible without having to open a door of the vehicle (for example, by entering via the liftgate or rear hatch) or in the case of a convertible vehicle, it is strongly recommended to have a motion detector (microwave) installed with the system. This device prevents the engine from starting should any activity be detected near the gearshift.

SAFETY SEQUENCE FOR MANUAL TRANSMISSION VEHICLES

Your remote starter was designed to force you to perform a series of actions that will ensure that the gearshift lever is in neutral position when you exit the vehicle.
This series of actions is called a "safety sequence" and is aimed at preventing any remote start in situations where remote starting the engine would not be safe.
Should the hatchback or any door be opened at any time, the intrusion will be detected and the safety sequence will be cancelled by the system, thus preventing a remote start. In such cases, the sequence must be repeated to allow for an eventual remote start.
The system offers two execution modes for the sequence. These options must be set at time of installation. The first mode is initiated by the parking brake and the other by the remote control.
The safety sequence must be performed as follows.

Sequence activated by the parking brake ☐.

1. While engine is running (key in ignition switch), apply the brakes and hold the pedal down.
2. Move gearshift lever to neutral.
3. Apply the parking brake ☐ Once ☐ Twice
   Note: The system can be set - at time of installation - to require that the parking brake be applied once or twice. If set for two actuations, pause one second between the two.
4. Remove key from ignition (the system keeps the engine running).
5. Exit the vehicle.
6. Within 60 seconds, close **all** doors.
7. The system will stop the engine except if Turbo Mode or Continuous Mode is active and blink the parking brakes once to confirm the sequence is valid (vehicle is ready for a remote start command).

Sequence activated by the remote control ☐

1. While engine is running (key in ignition switch), apply the brakes and hold the pedal down.
2. Move gearshift lever to neutral.
3. Apply parking brake.
4. Press button on your remote control.
5. Remove key from ignition (the system keeps the engine running).
6. Exit the vehicle and close all the doors.
7.

End of sequence by shutting doors ☐ *
The system will stop the engine except if Turbo Mode or Continuous Mode is on.

End of sequence by stop command ☐ *
Press on the button of the remote. The system will stop the engine. Note that the Turbo Mode is unavailable with this option.

The parking lights will blink once to confirm that the sequence is valid (vehicle is ready for a remote start command). * The end of sequence option is set at time of installation.

NOTES: If you release the brake pedal and depress it once more during or after the execution of the safety sequence, the safety sequence will be invalidated and any remote start will be impossible.

If the engine stops when the key is removed from the ignition, the safety sequence is invalid.
Perform a new safety sequence. If problem persists, consult your installer.

PREPARING SYSTEM

When you exit the vehicle, **<u>you need to prepare</u>** the remote starter for its next use.

- If the vehicle is equipped with a manual transmission, make sure that the remote starter system has detected a valid safety sequence.
- If the vehicle is equipped with an automatic transmission, make sure that the transmission lever is in the "**P**" position.
- Set heating/air conditioning controls to desired position (when the remote starter starts your engine, it will also turn on your climate control system).
- Turn your windshield wipers to the **OFF** position to avoid strain on the mechanism should a start command be sent to the vehicle, i.e. when heavy snow immobilizes the wipers.
- Make sure that the headlights are turned off.
- Be sure not to leave your keys inside the vehicle. Certain rearming functions can cause the doors to lock automatically.

THE REMOTE CONTROL

Your remote control can transmit on two different channels, allowing control of two separate vehicles. Up to four remote controls can be assigned to your vehicle.

NOTE: The range of your remote control can be affected by a weak battery, interference from nearby metal structures, hydro poles, or crowded parking lots.

Only the "Panic" command is transmitted on both channels when a single command is sent (alternating transmission channels).

The transmitter provides audible (piezo) and visual (LED) confirmation.

The LED lights-up red when it transmits on channel one or green when it transmits on channel two.

The remote shown may differ from the one included in the kits.

SELECTING TRANSMISSION CHANNEL

CHANNEL 1	CHANNEL 2
Press desired button for two seconds.	Momentarily press the «✱» button, then as soon as a tone is heard or that the red LED lights-up, press the desired button and hold it down for two seconds.

A command will not be executed if you do not press button long enough except for the 2504 remote that immediately transmit when either the lock or unlock button is pressed. In that case, the command is sent at reduced power.

Only one command is transmitted even when a button is pressed for more than two seconds, except for the "Panic" command, which is repeated as long as button is pressed.

Your system may be programmed in such a way that it can distinguish between two groups of remote controls (maximum: two remotes per group). These groups let you activate predefined settings (seat, mirror and other) when unlocking certain vehicles (additional optional equipment required).

BATTERY REPLACEMENT

Your remote works off two 3-volt lithium CR-2016 batteries or equivalent.

To replace the batteries, use a coin to snap open the remote casing via the slot on the side of the remote, remove old batteries and replace them with new ones. Make sure to properly replace the insulating strap around both batteries and to properly orient the batteries; see illustration opposite.

Close the casing by applying a pressure on both parts while these are properly aligned.

(2) CR-2016

TABLE OF COMMANDS

COMMAND	BUTTONS		CONFIRMATIONS		
	GROUPE 1	GROUPE 2	HORN	PARKING LIGHTS	SIREN*
PANIC	OR (> 4 SEC.)	AND (> 4 SEC.)	30 / 60 SEC.		
START / CONTINUOUS MODE			1 ❶	1 ❶	-
STOP ❷	(> 4 SEC.)		-	1	-
LOCK / ARMING*	(REDUCED RANGE IF < 2 SEC.)		1 ❸	1 / 3 ❻	1 / 3 / X ❸❺❻❼
UNLOCK / DISARMING* ❽	(REDUCED RANGE IF < 2 SEC.)		-	2 / 4 ❾	2 / 4 / X ❺❼❾
TRUNK ①			-	1 / 3	3 ❹
ACTIVATE / DEACTIVATE SENTINEL MODE			-	4 / 2 / 3 ❿	-
CAR FINDER			7	3	-
RUNTIME SETTING			-	1 – 4	-
DISPLAY REMOTE START FAIL CODES			-	1 - 20	-
ACTIVATE / DEACTIVATE UTILITY 1		(> 4 SEC.)	-	1	-
ACTIVATE / DEACTIVATE UTILITY 2		(> 4 SEC.)	-	1	-
ACTIVATE / DEACTIVATE UTILITY 3			-	1	-
ACTIVATE / DEACTIVATE UTILITY 4			-	1	-
VALET MODE ACTIVATE / DEACTIVATE			-	4 / 2 ❿	-
DISPLAY ALARM CONDITION CODES			-	1 – 8	-
KEYPAD LOCK			-	-	-
MUTE MODE (REMOTE TRANSMITTER)			-	-	-
COMMAND GROUPE (TOGGLE)			COMMAND GROUP SELECTING UPON INSTALLING. GROUP 2 USAGE IS PREFERABLE WHEN REMOTE STARTER IS EQUIPPED WITH A SECURITY SYSTEM.		

* COMMAND RELATED TO ARMING AND DISARMING ONLY APPLIES TO SYSTEM THAT IS INTERFACED WITH AN OPTIONAL ASTROFLEX SECURITY SYSTEM..

❶ THIS CONFIRMATION IS SENT ONLY WHEN COMMAND IS REPEATED WHILE ENGINE IS ALREADY RUNNING (HORN: PROGRAMMABLE DURING INSTALLATION). ❷ THIS COMMAND ENDS: RUNTIME, ALARM CONDITION AND PANIC MODE ❸ CONFIRMATION BY CHIRP OR HORN ON 2ND LOCK (WHEN PROGRAMMED "ON").. ❹ ONLY IF SYSTEM IS EQUIPPED WITH A SENSOR, WHICH DETECTS WHEN TRUNK IS OPEN (OPTIONAL). ❺ THESE CONFIRMATIONS ARE PROGRAMMABLE ENABLE/DISABLE DURING INSTALLATION. ❻ 1 = NO ZONE IS IN VIOLATION AT ARMING. 3 = AT LEAST ONE ZONE IS IN VIOLATION AT ARMING. ❼ X = NO CHIRP WHEN VALET MODE IS ACTIVE OR WHEN ALARM IS PROGRAMMED "OFF". ❽ TEMPORARY VALET MODE IS DISABLED IF COMMAND IS REPEATED DURING REARMING CYCLE. ❾ 2 = NO ZONE WAS IN VIOLATION WHEN ALARM WAS ARMED. 4 = AT LEAST ONE ZONE WAS IN INFRACTION WHEN ALARM WAS ARMED. ❿ 4 = ACTIVATED / 2 = DEACTIVATED / 3 = SYSTEM NOT READY. ① PARKING LIGHTS FLASHES ONCE IF THE COMMAND CANNOT BE EXECUTED.

CONFIRMATION

In all cases, your Remote Starter will confirm that command has been received properly.
This will be done by either sounding horn or flashing parking lights. In this manual, confirmation signals are written in an abbreviated form; for example: (horn: 1, lights: 2) Means that horn will sound once and parking lights will flash twice.

Parking light confirmations are mandatory. Horn confirmations are optional (programmable) and require an additional connection and equipment during installation.

Confirmations are explained in more detail under each command.

START COMMANDS

STARTING THE ENGINE

Refer to the table of command on page 5 to know which button to press.

The system automatically adjusts ignition duration for your type of vehicle; parking lights flash once (duration: four seconds) then stay on all the time engine is running.

If more than one command is emitted, each successive start command resets runtime to the beginning, parking lights flash once to confirm command has been received and horn sounds once (programmable during installation) to let you know engine is already running.

Repeating this command will produce an audible confirmation that engine has started, which can be useful if vehicle is not in sight (configurable during installation).

IF ENGINE FAILS TO START

If your system cannot start your engine at first attempt, it will wait for a few seconds and then try again (it could try again twice depending on reason for failure to start).

After three attempts, it will shut down automatically and wait for new command (see "Start fail codes" on page 16).

UPON ENTERING YOUR VEHICLE...

Automatic transmission vehicles	Manual transmission vehicles
▪ To avoid turning the engine off when taking place behind the steering wheel, do not apply the brakes until you have placed the key in the ignition and turned it to the RUN position.	▪ To avoid turning the engine off when taking place behind the steering wheel, do not apply the brakes and do not remove the parking brake until you have placed the key in the ignition and turned it to the RUN position.

DO NOT TURN IGNITION KEY TO START POSITION.

ENGINE RUNTIME

Your engine will stop automatically after a preset time (See "Setting the runtime" on page 8).

Parking lights will stay on as long as engine is running.

TRIGGER INPUT

Your remote starter is equipped with a negative trigger (pulse) input.

This input can be connected to another remote control device or to an AstroStart RST-2 timer output (optional), part number 310-903-502.

If this input is connected, consult this device's manual or ask your technician which command controls the start/stop function.

The start/stop commands received on this input are ignored while the engine is running on a remote start.

All Start/Stop functions controlled by this input behave in the same way as functions controlled by remote.

CONTINUOUS MODE

Continuous Mode function lets you remove the key from the ignition while leaving the engine running. This convenient feature allows you to leave your vehicle for short periods while climate controls remain on.

AUTOMATIC TRANSMISSION VEHICLES	To access Continuous Mode, press on the button while engine is idling (see STARTING THE ENGINE on page 6). If Turbo Mode is active, you must press a second time on the button of the remote to set the runtime according to the preset settings. Parking lights, engine and climate controls will remain on for the duration of the programmed runtime.
MANUAL TRANSMISSION VEHICLES	To access Continuous Mode, press on the button before removing the key from ignition when performing the safety sequence described on page 3. See "STARTING the ENGINE" on page 6. Note: Do not send the stop command if you perform sequence activated by the remote control (Step 7) on page 3. If Turbo Mode is on, it will be activated when the safety sequence is executed.

Remove the key, exit vehicle and lock all doors. All safety devices will remain active.

If you return to your vehicle before runtime has elapsed, just turn the key to RUN position and press the brake pedal.

TURBO MODE

(Activated at time of installation)

This mode allows the engine to be left running at idle speed for a short period of time so that the turbocharger can cool down as recommended by certain car manufacturers.

This mode activates the **continuous mode** at a **reduced runtime** (one or two minutes according to the programming).

To activate the Turbo Mode, press on the (2 sec.) button (refer to 'Continuous Mode').

WHAT STOPS THE ENGINE

For your safety, engine will not start or will stop if:

- Your key is in the RUN position (prevents Start cycle).
- Remote control sends a Stop message.
- Hood is open.
- Brakes are applied.
- Engine is over-revving (if programmed Enable at installation).
- Alarm detects intrusion.
- Main switch is **OFF**.
- Safety sequence not valid (manual transmission vehicle only - parking brake not applied, opening of door detected while remote starter was not keeping engine running).

MAIN SWITCH

Main switch is usually mounted under dashboard. It is a toggle **ON**/**OFF** switch that is used to cancel start functions.

It does not disable other commands which remain active (alarm, lock/unlock commands, etc.).

STOP

Refer to the table of command on page 5 to know which button to press.

This command only applies when engine is kept running by Remote Starter.

It is used to stop the run time, the panic mode as well as the alarm condition without disarming the security system.

LOW TEMPERATURE MODE

Refer to the table of command on page 5 to know which button to press.

The command alternatively activates/deactivate Low Temperature mode.

In Low Temperature (Sentinel) mode, system starts your engine automatically when temperature falls below a preset level.

Engine will run for programmed runtime, after which system will wait 2½ hours and then start engine again if temperature is still below preset level.

When mode is activated:

Parking lights will flash 4 times, then, if temperature is below preset level, engine will start.

If temperature is above preset level, system waits until it goes below preset level before starting.

In the case of a manual transmission vehicle, the system must have detected a valid security sequence to allow the activation of Low Temperature mode. (See "Safety sequence for manual transmission vehicles" on page 3).

If system cannot execute command (for example, hood is open), confirmation will be different (lights: 3).

When mode is deactivated:

Parking lights will flash twice to confirm that mode is deactivated. Applying brakes deactivates Low Temperature mode.

SETTING THE RUNTIME

Refer to the table of command on page 5 to know which button to press.

Parking lights flash one to four times to indicate selected runtime (see table opposite).

If you send this command while the ignition circuits are activated (by remote or key), runtime does not change but confirmation is sent to indicate last selection.

If Low Temperature (Sentinel) mode is already activated when this command is sent, the command sets or indicates Low Temperature mode runtime.

Note: Runtime is doubled for a diesel engine.

Number of flashes	Runtime
1	2 minutes [1]
2	4 minutes
3	8 minutes
4	18 minutes

[1] A runtime of 2 minutes (4 min. for a diesel engine) is not recommended for most vehicles unless you intend to drive off immediately after the remote start. This selection is not available in Low Temperature mode.

SECURITY SYSTEM (OPTIONAL)

The current section only applies to an AstroStart security system (added as an option) which must not be confused with the vehicle's OEM system.

PROTECTION ZONES

Your security system can use up to six different monitoring devices simultaneously to protect your vehicle.

These devices are connected to the system on different inputs called protection zones.

One of these zones can send an audible warning (7 chirps), while the other five generate an alarm condition if system is armed.

PROTECTION ZONES	FUNCTIONS
Pre-shock (Warning)	Siren chirps (7 times)
Pre-shock (more than 3 time in 3 min.) Doors Hood Additional sensor (Trunk) Shock sensor Ignition (key)	Siren on for 30 or 60 second period, which can be repeated up to 4 times depending on initial programming and whether violated zone is corrected or not. Each period is separated by a 5 second pause. (45 seconds for "Door" zone).

DETERRENTS

ACTIVE

When one of the monitoring devices detects a violation, system reacts by activating the following deterrents, depending on which is connected.

System can activate up to four deterrents simultaneously: **siren**, **parking lights**, **dome light** and/or **horn**.

PREVENTIVE

Depending on system's configuration, the indicator light shows different alarm conditions (see "Zone Codes" on page 12).
It can also act as a deterrent if installed in a place visible from outside vehicle.

ALARM MODES

WARNING

Warning signal is 7 siren chirps.

If a two-level shock sensor is connected to system, warning sounds every time vehicle is subjected to a light shock when the alarm is armed.

PRE-ALARM

If you set off the alarm by accident and do not want to alarm or disturb the whole neighbourhood, "pre-alarm" mode cuts in three seconds before the alarm condition to give you time to disarm the system.

In this mode, parking lights, siren and dome light go on and off intermittently for three seconds.

ALARM CONDITION

When system is in alarm condition, it activates the various deterrents connected to the alarm module.

Alarm condition remains active for 30 or 60 seconds depending on initial programming, then system pauses for five seconds (45 seconds for "Door" zone). During this pause, it checks the protection zones again and restarts alarm cycle if a zone is still in violation.

This cycle can be repeated up to four times. If situation that caused the violation is corrected in mid-cycle, alarm stops at end of current cycle.

OPERATION

Your alarm system has three different operating modes, **active**, **semi-passive rearming** and **passive rearming** depending on initial programming. See the relevant paragraph for the mode your system was configured in during installation.

ACTIVE

In active mode, the alarm must be **armed** and **disarmed** using the remote. See Table of Commands on page 5.

Alarm is armed as soon as command is received, even if a zone is in violation when command is received.

However, a violated zone cannot trigger the alarm unless it returned to a normal condition beforehand.

This mode is always available even if, during installation, your system was not configured for it.

SEMI-PASSIVE REARMING

In semi-passive mode, alarm must be **armed** and **disarmed** using the remote (see Table of Commands on page 5).

In this mode, alarm rearms automatically 25 seconds after disarming (rearming cycle) if doors are all closed. Indicator light flashes rapidly to indicate that system is in rearming cycle.

Note: If vehicle is equipped with power locks interfaced with the system, a device can be added to prevent doors from locking during rearming if key is still in ignition. If applicable, this device allows system to be armed but cancels locking.

Key detection device **is** ☐**, is not** ☐ installed on this vehicle.

Following table shows effect of each zone on rearming cycle.

Protection zone	Effect on rearming cycle
Hood Additional sensor (trunk) Shock sensor	These three zones prolong rearming cycle as long as they remain in violation.
Ignition	Activated by ignition key: Cancels rearming Activated by remote starter: No effect
Doors [2]	This zone cancels rearming completely.
Warning	No effect

Applying brakes or activating Temporary Valet Mode (see page 12) cancels rearming.

PASSIVE REARMING

In passive rearming mode, opening a door triggers rearming cycle.

Alarm will be armed 30 seconds after checking that all protection zones are in normal condition.

This 30-second period is called "rearming cycle".

If a zone detects a violation during rearming cycle, countdown stops and restarts at 30 seconds when all zones are back in normal condition.

During rearming cycle, indicator light flashes rapidly.

After five seconds, system sends an audible confirmation (siren chirps once), indicating that system will arm after 25 seconds.

After this delay, alarm is armed and sends a second confirmation (siren chirps once and parking lights flash once) to indicate that system is armed.

If you wish to remain in the vehicle without driving off, you can cancel rearming cycle by applying brakes.

When you exit the vehicle, cycle resumes and system arms automatically (see also "Temporary Valet Mode" on page 12).

If you disarm the system and do not open the door before the rearming delay expires, it rearms itself automatically (after 25 or 60 seconds depending on installation).

[2] If vehicle is equipped with a factory security system and runtime expires during rearming cycle, factory security system is reactivated but not AstroFlex security system because opening a door is simulated for factory system rearming.

The following table shows the effect that each zone has on the rearming cycle (after 25 or 60 seconds depending on installation).

Protection zone	Effect on rearming cycle
Hood Doors Additional sensor (trunk) Shock sensor	These four zones prolong rearming cycle as long as they remain in violation.
Ignition	Activated by ignition key: Cancels rearming Activated by remote starter: No effect
Warning	No effect

Applying brakes or ignition key in RUN position cancels rearming (until a door is opened, which causes rearming cycle to restart from the beginning).

See also "TEMPORARY VALET MODE" (page 12) and "DOME LIGHT DURATION" (page 13).

You can **disarm** only with the remote control by sending the lock command (see Table of Commands on page 5).

System is disarmed immediately and restarts rearming cycle from the beginning.

TO TERMINATE ALARM CONDITION

You can send the unlock command which also terminates the alarm condition and disarms the system or send either of the lock or stop command which terminates the alarm condition without disarming the system.

CONFIRMATION

When the alarm is armed, one chirp of the siren and/or flash of the parking lights means that all protection zones are in normal condition and system is ready.

Three chirps or flashes means that one or more zones are in violation (i.e. at least one door is opened).

Once the zone is corrected (i.e. door closed), the system sends another confirmation (one chirp or flash if all zones are in normal condition, three chirps or flashes if another zone is in violation).

If a zone is in violation when system is armed manually (using remote) and the cause of the violation is not corrected, the alarm will still arm but this zone will not be able to generate an alarm condition. See also "DOME LIGHT DURATION" on page 13.

When you disarm the alarm, two chirps or flashes indicate that no one tried to break into your vehicle, and four chirps or flashes indicate that an alarm condition occurred during your absence.

The following table summarizes this section.

CONFIRMATION	MEANING
1 chirp or flash	System armed, no zone in violation.
2 chirps or flashes	System disarmed, no violation detected.
3 chirps or flashes	System armed with zone in violation. Indicator light indicates which zone.
4 chirps or flashes	System disarmed with violation detected. Indicator light indicates cause of alarm condition.

INDICATOR LIGHT

Indicator light flashes a specific number of times to indicate different conditions of the security system when arming and disarming the system (depends on programming).

It can also act as a deterrent if installed in a place visible from outside the vehicle.

DURING ARMING Indicator flashes codes for zones in violation (i.e. at least one door is opened).

Only one code is shown at a time. If more than one zone is in violation during arming, code changes when zone shown is corrected (example: door closed).

DURING DISARMING Indicator flashes code for last zone that generated the alarm condition.

Code is shown when you send an unlock command.

This code is repeated until you apply the brakes.

The following table shows the meaning of zone codes (number of flashes).

ZONE CODES

FLASHES	ZONE INDICATED
1	System is armed.
2	A door is/was open.
3	Hood is/was open.
4	Alarm condition is/was detected on shock sensor input.
5	Key is/was in the run position.
6	Alarm condition is/was detected on additional sensor input. Additional sensor monitors status of _____
7	Loss of power (+12V battery supply was removed).
8	Alarm status is/has been detected on pre-shock sensor input.

Indicator can show two other conditions:

CONSTANT DIM LIGHT	Indicates that alarm is permanently disarmed. See "VALET MODE" on page 15.
RAPID FLASHES	Indicates that system is in rearming cycle. See " SEMI-PASSIVE REARMING" and "PASSIVE REARMING" on page 10.

SECONDARY FUNCTIONS

ANTI-LOCK

When connected, this function prevents system from locking the doors during automatic rearming if key is in the ignition.

It can also be connected to a switch to select automatic locking as ACTIVE or INACTIVE.

TEMPORARY VALET MODE (ALARM)

This mode is used to cancel automatic rearming for an indefinite period of time.

You will find this mode useful when fuelling up or working on your vehicle.

To activate Temporary Valet Mode, send an unlock command during the rearming cycle (the indicator light flashes rapidly).

When light stops flashing, it confirms that Temporary Valet Mode has been activated.

To cancel this mode, place ignition key in RUN position then remove it; passive rearming is reactivated when you open a door.

You can also arm the system using the remote, which cancels Temporary Valet Mode.

VALET MODE

This mode is used to deactivate alarm permanently when you take your vehicle in for servicing for example. It can be de/activate by the remote (see table of commands, page 5) or by the Valet switch.

Valet switch activates Valet Mode or terminates alarm condition when your **remote control is not available** (lost, batteries dead, etc.).

This switch must be installed in a hidden place known only to regular users of the vehicle.

Ask your installer to tell you where it is.

TO ACTIVATE VALET MODE, place ignition key in RUN position (do not start engine) then press Valet switch (for about 3 seconds) until indicator light comes on at half-brightness for 15 seconds or less, parking lights flash four times to confirm that mode was enabled. The indicator light comes on again when engine is stopped or when certain commands are received to remind you that Valet Mode is active.

TO DEACTIVATE VALET MODE, place ignition key in RUN position (do not start engine) then press Valet switch (for about 3 seconds) until indicator light goes out, parking lights flash twice to confirm that mode was disabled.

Notes

If you perform both sequences one after the other, you need to pause for 3 seconds between the two sequences.

Valet Mode is automatically deactivated when key is turned to the RUN position for the tenth time. This is to prevent Valet Mode from being left on for long periods of time.

GLOSSARY

SIREN

Siren has six different sounds, i.e., it chirps repeatedly and has six different melodies (supplied only with optional alarm kit).

It chirps intermittently (short repeated chirps) during a pre-alarm and continuously during an alarm condition.

It can confirm arm and disarm commands with short chirps; see table in CONFIRMATION section.

This function is programmable as active or inactive during installation.

HORN

Horn beeps intermittently (short repeated beeps) during an alarm condition.

This function is optional and may require the installation of additional material.

Ask your installer for more details.

PARKING LIGHTS

Parking lights flash intermittently (repeated flashes) during a pre-alarm and alarm condition.

Parking lights also confirm that commands have been received.

See table in CONFIRMATION section.

VIOLATION

Violation means a situation that causes a protection zone to generate an alarm condition; example: a door was opened, etc.

DOME LIGHT DURATION

The system may turn the vehicle dome light on for 30 seconds upon unlocking command or when stopping the engine with the ignition key (depends on programming) (optional connection - not applicable in "semi-passive rearming" mode).

On some vehicles, dome light may remain on after all doors have been closed.

If this option applies to your vehicle, rearming cycle is prolonged by the number of seconds during which dome light is kept on by vehicle's factory system.

- **Special condition**
  If during dome light duration, a "Lock" command is sent while a door is opened, system arms and ignores door violation; if door is still open 45 seconds after dome light duration ends, system recognizes door violation and changes to alarm condition.

LOCK/UNLOCK COMMANDS AND ALARM SYSTEM ARMING/DISARMING

If your vehicle is equipped with electric door locks, several functions can be operated by remote control.

These features are optional and may require purchasing additional equipment. Consult your dealer for advice.

Arming and disarming the security system also controls Lock/Unlock functions. The arming/disarming functions only apply to system that is equipped with a security system.

The following systems can be controlled:

- Door locks
- Trunk or hatchback release
- Interior lights

LOCK / ARM

Refer to the table of command on page 5 to know which button to press

Doors are locked and alarm system is armed, parking lights flash once and siren chirps once to confirm command has been received and that none of the protected zones are in violation.

Parking light confirmation is sent as many times as command is repeated so you are sure that system has received the command. Audible confirmation is also repeated (siren or horn depending on programming) if option "Confirmation on 2nd lock" is activated (during installation).

If a zone is in violation during arming, confirmation is different (3 flashes or chirps) to warn you. See table of alarm codes to know which zone is in violation.

UNLOCK / DISARM

Refer to the table of command on page 5 to know which button to press

Doors are unlocked and alarm is disarmed, parking lights flash and siren chirps twice to confirm command has been received and that no alarm condition was generated during your absence.

If there was a violation, confirmation is different (4 flashes or chirps) to warn you. See table of alarm codes to know which zone generated alarm condition.

The “Unlock“ function can be programmed and connected in such a way that the first Unlock command only unlocks the driver's door, while a following Unlock command unlocks the other door(s).

Dome light will turn on for 30 seconds every time Unlock command is sent (not applicable in semi-passive mode)(optional connection during installation).

This 30-second duration is cancelled when Lock command is sent, brakes are applied or key is inserted in ignition and turned to RUN position.

TRUNK RELEASE

This feature must be activated during the installation.

Refer to the table of command on page 5 to know which button to press

The trunk is released and parking lights flash three times to confirm command has been executed.

Trunk cannot be released if ignition key is in RUN position.

Furthermore, if alarm is armed and system is not equipped with an additional sensor capable of detecting trunk release (optional equipment not included), opening of trunk with remote control will not be possible.

In this case, parking lights flash once to confirm that command has been received but trunk could not be released.

If you are not sure you have received confirmation, repeat command. System will repeat confirmation as often as you wish.

If your vehicle is equipped with a factory installed security system and that this system is neutralized by the trunk release command, remember to rearm it after trunk is closed ("Lock" command).

SYSTEM EQUIPPED WITH AN ADDITIONAL SENSOR ☐.

If your system is equipped with a sensor designed to monitor status of trunk (added at time of installation), parking lights will flash three times to confirm command was received. When trunk is released, 3 chirps are emitted to warn that alarm will not take into account the status of this zone or the shock sensor's zone for the next 5 minutes. If you do not release trunk within 10 seconds, the system will rearm trunk automatically.

The timer is reset each time the command is repeated, which allows for a new 5-minute period to close the trunk lid.

The system will sound a chirp when trunk is closed to confirm it has been rearmed. If trunk is open for more than 5 minutes, the system switches to alarm status.

AUTOMATIC LOCK/UNLOCK

Programmable as **Active** or **Inactive** during installation.

This function locks doors when ignition key is in **RUN position**, engine is running and brakes are applied.

Doors are unlocked when key is turned from ‘RUN’ to ‘OFF’, when Continuous Mode (Including Turbo Mode) is activated or when a safety sequence is detected.

If “Unlock“ function is set to unlock only driver's door on the first command, the “Automatic Unlock“ function will unlock driver's door only. If dome light is connected to system, it is activated when an automatic unlock occurs.

This function is : Active ☐ Inactive ☐.

OTHER COMMANDS

ANTITHEFT (CIRCUIT DISABLER)

Programmable as **Active** or **Inactive** during installation.

Your Remote Starter is equipped with an Antitheft system. This system consists of an output that controls a relay that cuts all circuits required to operate your vehicle (optional connection).

"PASSIVE ARMING» TYPE ANTITHEFT

This type of Antitheft system arms automatically when ignition key is turned from **RUN** to **OFF** and remains **OFF** for one minute. It can also be armed manually by sending a "Lock" command (unless ignition key is in **RUN** position).

DISARMING : Antitheft system is disarmed for one minute when you send "Unlock" command.

If ignition key is not turned to 'RUN' position within one minute, system automatically rearms, thus preventing an intruder from starting your vehicle, even with ignition key. The indicator light (optional) blinks rapidly during rearming, and then continuously when antitheft system is armed.

It can be connected so that horn sounds if an intruder tries to start your vehicle when it is in the active state.

"ACTIVE» TYPE ANTITHEFT

This type of antitheft system is armed by sending a 'Lock' command (unless ignition key is in 'RUN' position) and is disarmed by sending an 'Unlock' command. The indicator light (optional) blinks continuously when antitheft system is armed

VALET MODE (ANTITHEFT)

The antitheft function can be deactivated for the same reasons and in the same way as the Antitheft system. See "Valet mode" details on page 15.

INDICATOR LIGHT

An optional indicator light (LED) can be added to the system to show the status of the safety sequence (on vehicles equipped with a manual transmission), and the status of the safety system, the antitheft system or the Valet Mode.

See 'Indicator Light' in the 'Safety System' Section.

The following table shows the codes displayed by the indicator light when performing the safety sequence.

Repeated flashes	Phase or Status
3 double flashes	Start of sequence.
2 double flashes	Door open.
1 double flash	Door closed (waiting for engine to stop).
1 single flash	Valid safety sequence (system is ready to receive a start command).
Fast (10 sec.)	Invalid sequence (sequence must be started over from beginning).

UTILITY COMMANDS

These commands allows you to control most of the vehicle accessories depending on what was connected during installation (headlights, defroster, etc.). For more information, check with your technician.

Refer to the table of command on page 5 to know which button to

Commands	Corresponding accessories	Duration
UTILITY 1 *		
UTILITY 2		
UTILITY 3		
UTILITY 4		

The accessory associated to each of these commands is activated for the duration set at the installation.

The delay can be cancelled by repeating the command.

* Programmable during installation : The "trunk" command can access the "utility 1" function.

CAR FINDER

Refer to the table of command on page 5 to know which button to press.

This function sounds **horn** (short tune) and flashes **parking lights** to help you locate your vehicle in a large parking lot.

REMOTE SILENT MODE

The remote can be programmed to be used in silent mode.

Refer to the table of command on page 5 to know which button to press.

The audible confirmations from the remote control are Deactivated/Reactivated.

KEYPAD LOCK

The keypad of your remote can be locked to prevent any unwanted commands to be sent to your vehicle.

The keypad is locked or unlocked depending on its previous status.

Refer to the table of command on page 5 to know which button to press.

PANIC

Refer to the table of command on page 5 to know which button to press.

This command activates **parking lights**, **siren**, **horn**, and **dome light** intermittently, depending on which is connected to system, for 30 seconds ☐ or 60 seconds ☐ depending on programming during installation.

Panic mode is used to attract attention if you are in difficulties.

If you are inside the vehicle when **Panic Mode is activated**, press on the brake pedal to lock doors (optional connections required) and neutralize antitheft (60 sec. if doors were already locked). As long as the cycle is not over, applying the brakes resets the sequence from the beginning every time.

This command will not be executed if engine is kept running by ignition key. In this case, parking lights will flash once to confirm that command has been received. Use the stop command to abort panic mode.

START FAIL CODES

When a remote start attempt fails, it is possible to determine what caused the failure to start.

Refer to the table of command on page 5 to know which button to press depending on remote transmitter model being used. The number of times the parking lights flash corresponds to the start fail code.

The table below lists the various start fail codes.

Code	Failure to start details
1	Module has received a Stop command (remote or timer).
2	Brakes were applied during or after start sequence or module overload occurred.
3	Stopped by alarm.
4	Engine does not crank when starting sequence is initiated.
5	Start command ignored because hood is open.
6	Safety sequence not valid during start sequence.
7	Start command ignored because key is in the run position.
8	Remote starter main switch is "OFF" or output overload.
9	Runtime has elapsed.
10	Remote starter attempted to start engine three times unsuccessfully.
11	Remote starter sensed engine was already running.
12	Engine is over-revving (RPM > 3000) (programmable at time of installation).
13	Engine not cranking fast enough during start sequence.
14	Security sequence has been invalidated by status of parking brake.
15	Security sequence has been invalidated by opening of one or more doors.
16	Internal failure of module.
19	Module does not detect manual interface.
20	Consult your dealer.

If any of these start fail codes persist, consult your dealer.

ALARM CONDITION CODES

Use this command to identify which zone is in violation during arming or which generated alarm condition.

Refer to the table of command on page 5 to know which button to press.

Parking lights will flash number of times corresponding to code for protection zone in violation.

If more than one zone is in violation, code for the zone with highest priority is shown (1 = highest priority).

See table of codes below.

Code	Protection Zone	Priority
1	System is armed.	8
2	A door is/was open.	1
3	Hood is/was open.	3
4	Alarm condition is/was detected on shock sensor input.	5
5	Key is/was in the RUN position.	2
6	Alarm condition is/was detected on additional sensor input. Additional sensor monitors status of _____	4
7	Loss of power (+12V battery supply was removed).	7
8	More than 3 warnings were given within 3 minutes by pre-shock input.	6

CODE LEARNING OF ADDITIONAL TRANSMITTER(S)

Four different remote controls can be programmed for a given vehicle. If a fifth remote is added, the first remote is deleted.

Note: When the first code learning command is sent, all the old codes are cleared out. therefore if you want to add a new remote, all the old ones must be reprogrammed as well.

One or more remote transmitters can be added. To do this, the programming is accessed as follows:

- Open hood. (Hood switch must be present and operational. – See "Safety checks" on page 17.)
- Place key in the ignition and turn to the RUN position
- Apply the brakes once
- You now have 10 seconds to turn the key from the RUN to the OFF position 3 times.
- If this sequence is correctly carried out, the control module flashes parking lights (4 flashes). You may then proceed to the next step.
- Press the button on the new remote control. When access code of new remote control is memorized, the control module will confirm with flashing parking lights (1 flash).
- Repeat the above procedures for each remote control that has to be programmed (up to 4 remotes).
- Apply the brakes.

New remote(s) is (are) now added to the system.

If your vehicle is equipped with a function that automatically sets driver preferences (seat, mirrors, etc.) and the system is configured to control it, the remote controls programmed in positions 1 and 2 will control the settings for the first driver and the remote controls programmed in positions 3 and 4 will control the settings for the second driver. If you only have two remote controls, program the first one twice and the second one twice to occupy the four memory locations of the system.

SAFETY CHECKS

In order to maintain a high safety standard, proceed with the following checks every month.

HOOD SWITCH

- Remote start your vehicle.
- Open hood.

Engine should stop as soon as hood is opened.

If engine does not stop immediately, turn main switch to **OFF** position **and leave it off until situation is rectified.** Contact your service center.

GEARSHIFT CHECK APPLICABLE TO AUTOMATIC TRANSMISSION VEHICLES

If key must be in ignition for gearshift to be moved out of **P**, your vehicle is safe as long as keys are kept away from children.

If, on the other hand, gearshift can be put in gear without key being in ignition, proceed with this simple check.

- Make sure that the parking brake is applied.
- Put gearshift in gear (**D**).
- Remain in the vehicle and be ready to apply brakes.
- Start vehicle with remote starter.
- Repeat these steps with gearshift in every position other than **Park** and **Neutral**.

If starter reacts within 90 seconds (which is not safe), turn main switch to OFF position **and leave it off until situation is rectified**. Contact your service center.

- Make sure that the parking brake is applied.
- With gearshift in **P**, start vehicle with remote starter.
- Remain in vehicle and **be ready to apply brakes**.
- **Without applying brakes**, move gearshift out of P.

If, without applying brakes, engine does not stop immediately (which is not safe), turn main switch to **OFF** position **and leave it off until situation is rectified.** Contact your service center.

GEARSHIFT CHECK APPLICABLE TO MANUAL TRANSMISSION VEHICLES

Make sure the parking brake is operational, i.e. it has the capability of **immobilizing** the vehicle.
If the parking brake cannot stop the wheels from turning, which is not safe, place the main switch in **OFF position until the situation is rectified**.

DETECTION OF PARKING BRAKE STATUS

1. Carry out the safety sequence, then remote start the engine to confirm the safety sequence is valid. Make sure not to apply the brakes.
2. Release the parking brake.

The engine must stop immediately upon releasing the parking brake. If the engine does not stop, which is not safe, place the main switch in OFF **position until the situation is rectified**. Consult your service center.

DETECTION OF DOOR OPENING

Make sure that the opening of **each** door (open one by one) will break safety sequence.

1. Carry out the safety sequence, then remote start the engine to confirm the safety sequence is valid.
2. Stop the engine using the remote control. Make sure you do not apply the brakes and that the parking brake remains applied until step 4.
3. Open then close **only one door** once the engine has stopped.
4. Try to start the engine using the remote control.

The engine should not be able to be remote started and the system should generate error code #15.

Repeat this test **for every door** of the vehicle (**including hatchback** if applicable).

If the vehicle is equipped with fold-down rear seat backrests, the trunk has to be considered as a door since it is an opening that can give access to the passenger compartment. It **must** therefore be included in the safety sequence.

If the engine starts, which is not safe, place the main switch in OFF **position until the situation is rectified.** Consult your service centre.

REPLACING OR BOOSTING VEHICLE BATTERY

If you have to replace or boost your battery for any reason, turn main switch to **OFF** position **and leave it OFF until battery is replaced or fully charged.**

Reversing polarity when boosting your battery could permanently damage your remote starter.

Note: If alarm is armed when battery is disconnected, siren will sound when battery is reconnected if a zone is in violation.

To avoid this, put system in Valet Mode before disconnecting battery.